Amendment under 37 CFR §1.111
Attorney Docket No.: 062270

Application No.: 10/572,375

Art Unit: 1797

AMENDMENTS TO THE CLAIMS

The listing of claims below replaces all prior versions of claims in the application.

1. (Currently Amended): A method for producing bubbles by the injection and dispersion

of a gas through a porous body into a liquid,

wherein the porous body has a value of 1 to 1.5,

wherein the value is given by dividing the pore diameter that accounts for 10% of the

total pore volume in the relative cumulative pore distribution curve of the porous body by the

pore diameter that accounts for 90% of the total pore volume in the relative cumulative pore

diameter distribution curve of the porous body,

wherein the contact angle with respect to the liquid of at least the surface of the porous

body that is in contact with the liquid is greater than 0° and less than 90°,

wherein the gas is pressurized so that (1) the pressure is not less than the minimum

pressure ΔPc given by the following equation;

 $\Delta Pc = 4 \gamma \cos \theta / Dm$

wherein y is the surface tension of the liquid relative to the gas, θ is the angle of contact

relative to air of the liquid present at the surface of the porous body, and Dm is the average pore

diameter of the porous body, and (2) the pressure difference ΔP between the pressure of the gas

when the gas is pressured and the pressure of the liquid is controlled to 0.2 to 10 MPa.

2. (Cancelled).

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3. (Original): The method according to claim 1, wherein porous glass is used as the

porous body.

4. (Original): The method according to claim 1, wherein the liquid contains at least one

additive selected from the group consisting of emulsifying agents, emulsion stabilizers, foaming

agents, and alcohols.

5. (Currently Amended): Bubbles having the average bubble diameter of 400nm to

900nm obtained by the method according to claim 1.

6. (Original): The bubbles according to claim 5, wherein, in the integrated volume

distribution of the bubbles,

1) the diameter at which the bubble volume accounts for 10% of the total bubble volume

is at least 0.5-times the diameter at which the bubble volume accounts for 50% of the total

bubble volume, and

2) the diameter at which the bubble volume accounts for 90% of the total bubble volume

is no more than 1.5-times the diameter at which the bubble volume accounts for 50% of the total

bubble volume.

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